

C 32265

(Pages : 3)

Name.....

Reg. No.....

FIRST SEMESTER M.B.A. DEGREE EXAMINATION, DECEMBER 2017

(CUCSS)

BUS 1C 07—QUANTITATIVE TECHNIQUES

(2016 Admissions)

Time : Three Hours

Maximum : 36 Weightage

Part A

Answer all the questions.

Each question carries 1 weightage.

1. What is inferential analysis ?
2. What are non-parametric tests ?
3. Distinguish between correlation and regression.
4. Explain random variable and random experiment.
5. Explain one-tailed test and two-tailed test in testing hypothesis.
6. What is coefficient of determination ?

(6 × 1 = 6 weightage)

Part B

Answer any four questions.

Each question carries 3 weightage.

7. What is normal distribution ? Explain the properties of a normal distribution.
8. A company uses a 'selling aptitude test' in the selection of salesmen. Past experience has shown that only 70% of all persons applying for a sales position achieved a classification "dissatisfactory" in actual selling, whereas the remainder were classified as "satisfactory", 85% had scored a passing grade on the aptitude test. Only 25% of those classified unsatisfactory, had passed the test on the basis of this information. What is the probability, that a candidate would be a satisfactory salesman given that he passed the aptitude test ?
9. Explain with illustrations the concept of point estimation and interval estimation.
10. How to create a variable in SPSS ? Explain the procedure for entering data into SPSS.

Turn over

17. A brand manager is concerned that her brand's share may be unevenly distributed throughout the country. In a survey in which the country was divided into four geographical regions, a random sampling of 100 consumers in each region was surveyed, with the following results :

	Region				Total
	NE	NW	SE	SW	
Purchase the brand	40	55	45	50	190
Do not purchase	60	45	55	50	210
Total	100	100	100	100	400

- (a) Develop a table of observed and expected frequencies for this problem.
- (b) Calculate the sample χ^2 Value.
- (c) State the null and alternative hypotheses.
- (d) At $\alpha = 0.05$, test whether brand share is the same across the four regions.

(3 × 4 = 12 weightage)

Part D

Answer the compulsory question.

6 weightage.

18. A tea company appoints four sales men A, B, C and D and observes their sales in three seasons-summer, winter and monsoon. The figures (in lakhs) are given in the following table :

Season	Salesmen				Season's Total
	A	B	C	D	
Summer	36	36	21	35	128
Winter	28	29	31	32	120
Monsoon	26	28	29	29	112
Salesmen's Totals	90	93	81	96	360

- (a) Do the salesmen significantly differ in the performance ?
- (b) Is there significant difference between the seasons ?

(6 weightage)